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WE CLAIM:

[C1] A neural implant comprising a device coated with a nanomaterial.

- [C2] A neural implant comprising a device, wherein at least one component of the device is made of a nanomaterial.
- [C3] The neural implant of claim 1, wherein the nanomaterial comprises carbon nanofibers.
- [C4] The neural implant of claim 3, wherein the carbon nanofibers are about 2 to 200 nm in width.
- [C5] The neural implant of claim 4, wherein the carbon nanofibers comprise carbon nanotubes.
- [C6] The neural implant of claim 5, wherein the carbon nanotubes are functionalized.
- [C7] The neural implant of claim 5, wherein the carbon nanotubes are aligned.
- [C8] . The neural implant of claim 1, wherein the implant is a neural probe.
- [C9] The neural implant of claim 2, wherein the nanomaterial comprises a matrix selected from the group consisting of polyurethane, polymethacrylate, polyester, polyvinyl and any copolymers thereof.
- [C10] The neural implant of claim 2, wherein the implant is a neural probe.
- [C11] A neural prostheses comprising an implantable device with a composite polyurethane carbon nanotube, the device capable of stimulating neuronal growth and minimizing glial scar tissue formation.
- [C12] The neural prostheses of claim 11, wherein the carbon nanotube comprises 2% to 100% of the composite.
- [C13] The neural prostheses of claim 11, wherein the carbon nanotube forms a carbon nanofiber.
- [C14] The neural prostheses of claim 13, wherein the carbon nanofiber is about 100 nm.
- [C15] Use of a neural implant that minimizes scar formation comprising:
 - (a) obtaining a neural implantable device;
 - (b) coating the implantable device with a nanomaterial; and
 - (c) securing the implantable device in the neural tissue.
- [C16] Use of a neural implant that minimizes scar formation comprising:
 - (a) obtaining a neural implantable device comprising a nanomaterial; and

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- (b) securing the implantable device in the neural tissue.
- [C17] A method of stimulating neuronal growth and minimizing scar formation by an implant in a brain, the method comprising:
 - (a) obtaining a neural implantable device comprising a nanomaterial;
 - (b) securing the implantable device in the brain; and
 - (c) providing neuronal stimulants through the device.
- [C18] An orthopedic prostheses comprising an implantable device coated with a composite polyurethane carbon nanotube, the device capable of stimulating osteoblast proliferation and minimizing fibroblast encapsulation.
- [C19] A method of stimulating osteoblast proliferation and minimizing fibroblast encapsulation by an orthopedic implant, the method comprising:
 - (a) obtaining an orthopedic implantable device comprising a nanomaterial; and
 - (b) securing the implantable device.
- [C20] A method of selecting a nanomaterial suitable for implant, the method comprising:
 - (a) determining structural dimensions of a biological molecule in a biological tissue; and
 - (b) fabricating the nanomaterial whose surface structural dimension is similar to the biological molecule.
- [C21] A method of claim 20, wherein the nanomaterial comprises carbon nanofibers of about 2-200 nm in width.
- [C22] A method of claim 20, wherein the biological molecule is laminin.